The opinion in support of the decision being entered today was <u>not</u> written for publication and is <u>not</u> binding precedent of the Board

UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

_____

<u>Ex parte</u> GERALD W. REYNOLDS

_____

Appeal No. 2002-1311
Application No. 09/042,291

_____

DECISION ON APPEAL

_____

Before KRASS, JERRY SMITH, AND BLANKENSHIP, <u>Administrative</u> <u>Patent Judges</u>.

JERRY SMITH, <u>Administrative Patent Judge</u>.

　　This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1, 4-6, 8, 12, 14-24, 29 and 30, which constitute all the claims still pending in the application.

　　The disclosed invention pertains to a graphics memory system of a computer graphics display system that utilizes a batching architecture in conjunction with detached Z buffering for minimizing paging overhead.

Representative claim 1 is reproduced as follows:

Claim 1. A graphics memory system comprising:

a memory controller receiving a first quantity of Z coordinates and pixel colors, each pixel color being associated with one location on a display screen, each Z coordinate representing a depth in 3-dimensional space of a pixel, each pixel color having a row and column address associated there-with, each row and column address corresponding to a memory location in a memory element such that each pixel color is associated with a particular memory location in the memory element, the memory controller receiving a plurality of Z coordinates from the memory element, the memory controller comparing each Z coordinate received from the memory element with each Z coordinate of the first quantity in accordance with a Z comparison test to determine whether a pixel color associated with a compared Z coordinate of the first quantity should be written into the memory element, wherein if the Z coordinate of the first quantity passes the Z comparison test, a determination is made that a pixel color associated with the compared Z coordinate of the first quantity that passes the Z comparison test is to be saved in the memory element, wherein after the Z comparison test has been performed on all of the Z coordinates of the first quantity, pixel colors associated with the Z coordinates that passed the Z comparison test are saved in the memory element at the memory locations associated with the pixels, wherein the memory element comprises an image buffer region and a Z buffer region, the image buffer region being separate from the Z buffer region, wherein Z coordinates are stored in the Z buffer region and pixel colors are stored in the image buffer region.

The examiner relies on the following reference:

Gonzalez-Lopez et al.　　　5,043,921　　　Aug. 27, 1991
  (Gonzalez-Lopez)

Claims 1, 12, 19, 20 and 29 stand rejected under 35 U.S.C. § 103(a) "as being unpatentable

by Gonzalez-Lopez et al. ('G-L', U.S. Pat. No. 5,043,921) in view of *In re Larson ('Larson')*,

144 USPQ 347, 349; 339 US 965 (CCPA 1965)." Claims 4-6, 8, 14-18, 21-24 and 30 stand

rejected under 35 U.S.C. § 103(a) "as being unpatentable over G-L in view of *Larson* and further

in view of *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8, 11; 549 F.2d 833(7th Cir. 1977)('*St.*

Regis Paper Co')."

Rather than repeat the arguments of appellant or the examiner, we make reference to the

briefs and the answer for the respective details thereof.

<div align="center">OPINION</div>

We have carefully considered the subject matter on appeal, the rejections advanced by the

examiner and the evidence of obviousness relied upon by the examiner as support for the

rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision,

the appellant's arguments set forth in the briefs along with the examiner's rationale in support of

the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon and

the level of skill in the particular art would not have suggested to one of ordinary skill in the art

the obviousness of the invention as set forth in the claims on appeal. Accordingly, we reverse.

Appellant has indicated that for purposes of this appeal the claims will all stand or fall

together as a single group [brief, page 5]. Consistent with this indication appellant has made no

separate arguments with respect to any of the claims on appeal. Since there are two different

rejections before us, appellant's grouping will be accepted as a representation that all the claims

within each rejection will stand or fall together. Note In re King, 801 F.2d 1324, 1325, 231

USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir.

1983). Accordingly, we will only consider the rejections against a single claim from each

separate rejection as representative of all the claims on appeal.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a

factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071,

1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the

factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459,

467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would

have been led to modify the prior art or to combine prior art references to arrive at the claimed

invention. Such reason must stem from some teaching, suggestion or implication in the prior art

as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal,

Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert.

denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d

281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp.

Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

These showings by the examiner are an essential part of complying with the burden of presenting

a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443,

1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome

the prima facie case with argument and/or evidence. Obviousness is then determined on the

basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re

Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d

1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189

USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellant have been

considered in this decision. Arguments which appellant could have made but chose not to make

in the brief have not been considered and are deemed to be waived by appellant [see 37

CFR § 1.192(a)].

　　With respect to the rejection of representative, independent claim 1, the examiner

essentially finds that Gonzalez-Lopez teaches the claimed invention except for one memory

element which comprises an image buffer region and a Z buffer region, the image buffer region

being separate from the Z buffer region, wherein Z coordinates are stored in the Z buffer region

and pixel colors are stored in the image buffer region. The examiner cites In re Larson ,

however, as rendering obvious the integration of parts such as two separate memory elements

into one. Thus, the examiner concludes that it would have been obvious to the artisan to have

modified the memory structure of Gonzalez-Lopez based on the holding of In re Larson

(hereinafter Larson) [answer, pages 4-6].

　　Appellant argues that the facts in Larson have nothing to do with combining separate

memory elements into one. Appellant argues that the claimed invention is more than simply

combining two separate elements into one. Appellant notes that the claimed invention recites a

single memory element for storing both the Z coordinates and the color values associated

therewith, which is not taught by Gonzalez-Lopez. Appellant also argues that the memory

controller of Gonzalez-Lopez operates differently from the claimed memory controller. Finally,

appellant argues that the claimed invention implements a batching architecture which is not

taught by Gonzalez-Lopez [brief, pages 5-12].

The examiner responds that Larson is applicable because it holds that it is obvious to

integrate two separate things into a single thing. The examiner reiterates that Larson renders

obvious appellant's integration of the separate Gonzalez-Lopez image buffer region and Z buffer

region into a single memory. The examiner also finds that the reduced paging result of

appellant's invention is not recited in the claims on appeal [answer, pages 11-14].

Appellant responds that the examiner has applied Larson as a prior art reference, but

appellant argues that Larson is non-analogous art and is, therefore, unavailable as prior art.

Appellant also argues that there is no motivation to combine the teachings of Gonzalez-Lopez

with Larson. Appellant also argues that the facts of Larson are distinguishable from the facts of

this case [reply brief, pages 4-10].

We will not sustain the examiner's rejection of the claims on appeal. We note, however,

that we do not agree with appellant's argument that the case of Larson is being used as a prior art

reference by the examiner. The Larson case is being used by the examiner as a basis for finding

an acknowledged difference between the claimed invention and a prior art reference (Gonzalez-

Lopez) to be obvious. Thus, all of appellant's arguments regarding the Larson case being non-

analogous art are misplaced. The holding in <u>Larson</u> is relevant to any case in which the facts

cannot be persuasively distinguished, which brings us to this case which is before us.

The examiner has improperly applied the holding of <u>Larson</u> as a <u>per se</u> rule. In other words, the

examiner finds that integrating any two things into one thing must be obvious regardless of the

individual facts in the case. Since the examiner has used a <u>per se</u> rule, the examiner has failed to

consider the particular problems associated with combining separate memories into a single

memory. It was improper for the examiner to apply the holding in <u>Larson</u> without regard for the

particular nature of the claimed subject matter.

We also agree with appellant that the examiner has failed to consider all the recitations of

the claimed invention. The claimed invention also recites that the Z comparison test is

performed in such a manner that the repaging of the memory element is reduced. The examiner

has not explained how the controller of Gonzalez-Lopez achieves this claimed result.

In summary, we find that the examiner has failed to consider the specific recitations of the

claimed invention, and the examiner has improperly applied the holding of <u>Larson</u> as a <u>per se</u>

rule of obviousness. Therefore, we do not sustain the examiner's rejection of claims 1, 12, 19,

20 and 29.

Since we have not sustained the rejection of independent claims 1, 12 and 19, we also do

not sustain the examiner's rejection of any of the dependent claims. We note for the record that

appellant's arguments and the examiner's arguments with respect to the <u>St. Regis Paper Co.</u> case

would be disposed of in the same manner as the arguments related to the <u>Larson</u> case.

In conclusion, we have not sustained either of the examiner's rejections of the claims on appeal. Accordingly, the decision of the examiner rejecting claims 1, 4-6, 8, 12, 14-24, 29 and 30 is reversed.

<div align="center">REVERSED</div>

ERROL A. KRASS	)	
Administrative Patent Judge	)	
	)	
	)	
JERRY SMITH	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
HOWARD B. BLANKENSHIP	)	
Administrative Patent Judge	)	

JS/dpv

Appeal No. 2002-1311
Application No. 09/042,291

HEWLETT PACKARD COMPANY
P.O. BOX 272400
3404 E. Harmony Road
Intellectual Property Administration
Fort Collins, CO   80527-2400